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===============================================================
Sequence Listing was accepted with existing errors.
See attached Validation Report.
If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).
Reviewer: Durreshwar Anjum
Timestamp: Mon May 14 12:25:53 EDT 2007
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Application No: 10585880   Version No: 1.1

Input Set:

Output Set:

Started:	2007-05-14 12:25:28.045
Finished:	2007-05-14 12:25:29.280
Elapsed:	0 hr(s) 0 min(s) 1 sec(s) 235 ms
Total Warnings:	4
Total Errors:	1
No. of SeqIDs Defined:	18
Actual SeqID Count:	18

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
E 224	<220>,<223> section required as <213> has Artificial sequence or Unknown in SEQID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)

<110>   CHONNAM NATIONAL UNIVERSITY et al.

<120>   MUCOSAL VACCINE ADJUVANTS CONTAINING BACTERIAL FLAGELLINS AS
  AN ACTIVE COMPONENT

<130>   Q95704

<140> 10/585,880
<141> 2006-07-11

<150>   KR 10-2004-0001974
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<213>   Vibrio vulnificus

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gcgaaagatg atgctgcagg tctacaaatt tctaaccgtt tgaactcgca aagccgtggt   180

ctcgacatgg cggttaaaaa tgccaacgat ggtatctcta ttgcacagac tgctgaaggt   240

gcaatgacag agaccaccaa catcctacaa cgtatgcgtg accttgcctt gcaatcgtct   300

aacggttcga actctcgttc tgaacgcgtg gcgattcaag aagaagtgtc agcgttgaac   360

caagaactta accgtatcgc agagacaacc tcttttggtg gtaacaaact ccttaacggt   420

acgtacggtt ctcaatcttt ccaaatcggt gctgactctg gtgaagctgt gatgctttct   480

atgggtaacc ttcgttcaga tacagacgcg atgggcggct tgagctacaa atctgaagaa   540

ggcgtaggcg cagattggcg tgtaagcgac aacactgact tcacgatgtc ttatgtgaat   600

aagcaaggtg aagaaaaaga gatcacagtc aacgccaaag cgggtgacga tcttgaagaa   660

ctggcgactt acatcaacgg tcaaaacgat gatgtgaaag cgtcggtcgg tgaaggcggc   720

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ctagcgtctg agttgaacat tggtgatggc accaaaacca atgtgagcaa cattgatgtc   840

acgacggttg ctggctctca agaagcagta gcgatcattg atggcgcatt gaaatcggta   900

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ctaagcaaca tcaatgagaa cgtaaacgct tcgagcagcc gtatcaagga taccgactac 1020

gcgaaagaaa cgactcagat gactaagacg caaattctgc agcaggcgag tacttctatc 1080

ctggcgcagg cgaagcagtc accatctgca gctcttagct tgttgggcta a   1131

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<212>   PRT
<213>   Vibrio vulnificus

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Tyr Leu Asn Gln Ala Ala Glu Gly Gln Gln Lys Ser Met Glu Arg Leu
             20   25   30

Ser Ser Gly Tyr Lys Ile Asn Ser Ala Lys Asp Asp Ala Ala Gly Leu
          35   40   45

Gln Ile Ser Asn Arg Leu Asn Ser Gln Ser Arg Gly Leu Asp Met Ala
        50   55   60

Val Lys Asn Ala Asn Asp Gly Ile Ser Ile Ala Gln Thr Ala Glu Gly
 65   70   75   80

Ala Met Thr Glu Thr Thr Asn Ile Leu Gln Arg Met Arg Asp Leu Ala
                 85   90   95

Leu Gln Ser Ser Asn Gly Ser Asn Ser Arg Ser Glu Arg Val Ala Ile
             100   105   110

Gln Glu Glu Val Ser Ala Leu Asn Gln Glu Leu Asn Arg Ile Ala Glu
          115   120   125

Thr Thr Ser Phe Gly Gly Asn Lys Leu Leu Asn Gly Thr Tyr Gly Ser
     130   135   140

Gln Ser Phe Gln Ile Gly Ala Asp Ser Gly Glu Ala Val Met Leu Ser
145   150   155   160

Met Gly Asn Leu Arg Ser Asp Thr Asp Ala Met Gly Gly Leu Ser Tyr
                 165   170   175

Lys Ser Glu Glu Gly Val Gly Ala Asp Trp Arg Val Ser Asp Asn Thr
             180   185   190

Asp Phe Thr Met Ser Tyr Val Asn Lys Gln Gly Glu Glu Lys Glu Ile
          195   200   205

Thr Val Asn Ala Lys Ala Gly Asp Asp Leu Glu Glu Leu Ala Thr Tyr
     210   215   220

Ile Asn Gly Gln Asn Asp Asp Val Lys Ala Ser Val Gly Glu Gly Gly
225   230   235   240

Lys Leu Gln Leu Phe Ala Ser Asn Gln Arg Val Glu Gly Glu Val Glu
          245   250   255

Phe Gly Gly Gly Leu Ala Ser Glu Leu Asn Ile Gly Asp Gly Thr Lys
          260   265   270

Thr Asn Val Ser Asn Ile Asp Val Thr Thr Val Ala Gly Ser Gln Glu
          275   280   285

Ala Val Ala Ile Ile Asp Gly Ala Leu Lys Ser Val Asp Ser Glu Arg
       290   295   300

Ala Ser Leu Gly Ala Phe Gln Asn Arg Phe Asn His Ala Ile Ser Asn
305   310   315   320

Leu Ser Asn Ile Asn Glu Asn Val Asn Ala Ser Ser Ser Arg Ile Lys
          325   330   335

Asp Thr Asp Tyr Ala Lys Glu Thr Thr Gln Met Thr Lys Thr Gln Ile
          340   345   350

Leu Gln Gln Ala Ser Thr Ser Ile Leu Ala Gln Ala Lys Gln Ser Pro
          355   360   365

Ser Ala Ala Leu Ser Leu Leu Gly
       370   375

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<213>   Vibrio vulnificus

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gcaaaagatg acgcagccgg tctgcaaatc tctaaccgct tgaacgtaca aagtcgcggt   180

ctagacgttg cggtacgtaa cgccaacgac ggtatctcaa tcgcacaaac cgcagaaggt   240

gcgatgaacg agaccaccaa catcctacaa cgtatgcgtg acctatctct acaatccgcg   300

aacggctcaa actcaaaatc agagcgcgtg gcgattcaag aagaagtgac agcattgaat   360

gacgagctaa accgtattgc agaaaccacg tcttttggtg gtaacaagct gctaaacggt   420

acttacggca cgaaagcaat gcaaattggt gcggataacg gtgaagcggt catgctttca   480

ctgaaagaca tgcgctctga caacgtgatg atgggcggcg tgagctacca agctgaagaa   540

ggcaaagaca gaactggaa tgtggccgca ggcgacaacg acttgacgat tgcactgaca   600

gacagctttg gtaacgagca agagatcgaa atcaacgcga aagcgggtga tgacatcgaa   660

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gagctagcga cgtacatcaa cggtcaaact gaccttgtaa aagcgtcagt gggtgaaggc    720

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agcctagctg gtgaacttgg cctagcgaa  ggcaaaaacg tcacggtaga cacgattgac    840

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gtagacagcc accgtgcaga gctgggtgca ttccagaacc gtttcaacca tgcaatcagc    960

aacttggaca acatcaacga aaacgtgaac gcgtcgaaga gccgaatcaa agataccgac   1020

ttcgcgaaag aaacgactca gttgaccaag acacaaattc tatcgcaagc atcaagttcc   1080

attcttgcgc aagcgaaaca agcgccaaac tcagcgctaa gtctactagg cta            1133
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<212>   PRT
<213>   Vibrio vulnificus

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 1   5   10   15

Tyr Leu Asn Asn Ala Asn Ser Ala Gln Gln Thr Ser Met Glu Arg Leu
                20   25   30

Ser Ser Gly Phe Lys Ile Asn Ser Ala Lys Asp Asp Ala Ala Gly Leu
            35   40   45

Gln Ile Ser Asn Arg Leu Asn Val Gln Ser Arg Gly Leu Asp Val Ala
        50   55   60

Val Arg Asn Ala Asn Asp Gly Ile Ser Ile Ala Gln Thr Ala Glu Gly
 65   70   75   80

Ala Met Asn Glu Thr Thr Asn Ile Leu Gln Arg Met Arg Asp Leu Ser
                85   90   95

Leu Gln Ser Ala Asn Gly Ser Asn Ser Lys Ser Glu Arg Val Ala Ile
            100   105   110

Gln Glu Glu Val Thr Ala Leu Asn Asp Glu Leu Asn Arg Ile Ala Glu
        115   120   125

Thr Thr Ser Phe Gly Gly Asn Lys Leu Leu Asn Gly Thr Tyr Gly Thr
    130   135   140

Lys Ala Met Gln Ile Gly Ala Asp Asn Gly Glu Ala Val Met Leu Ser
145   150   155   160

Leu Lys Asp Met Arg Ser Asp Asn Val Met Met Gly Gly Val Ser Tyr
                165   170   175

Gln Ala Glu Glu Gly Lys Asp Lys Asn Trp Asn Val Ala Ala Gly Asp
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                180                     185                     190

Asn Asp Leu Thr Ile Ala Leu Thr Asp Ser Phe Gly Asn Glu Gln Glu
        195                 200                 205

Ile Glu Ile Asn Ala Lys Ala Gly Asp Asp Ile Glu Glu Leu Ala Thr
    210                 215                 220

Tyr Ile Asn Gly Gln Thr Asp Leu Val Lys Ala Ser Val Gly Glu Gly
225                 230                 235                 240

Gly Lys Leu Gln Ile Phe Ala Gly Asn Asn Lys Val Gln Gly Glu Ile
                245                 250                 255

Ala Phe Ser Gly Ser Leu Ala Gly Glu Leu Gly Leu Gly Glu Gly Lys
                260                 265                 270

Asn Val Thr Val Asp Thr Ile Asp Val Thr Thr Val Gln Gly Ala Gln
        275                 280                 285

Glu Ser Val Ala Ile Val Asp Ala Ala Leu Lys Tyr Val Asp Ser His
    290                 295                 300

Arg Ala Glu Leu Gly Ala Phe Gln Asn Arg Phe Asn His Ala Ile Ser
305                 310                 315                 320

Asn Leu Asp Asn Ile Asn Glu Asn Val Asn Ala Ser Lys Ser Arg Ile
                325                 330                 335

Lys Asp Thr Asp Phe Ala Lys Glu Thr Thr Gln Leu Thr Lys Thr Gln
        340                 345                 350

Ile Leu Ser Gln Ala Ser Ser Ser Ile Leu Ala Gln Ala Lys Gln Ala
        355                 360                 365

Pro Asn Ser Ala Leu Ser Leu
    370                 375


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<213>    Vibrio vulnificus

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gcaaaagacg atgcggcagg gctgcaaatt tcgaatcgtc ttcagtcgca aatgcgtggt   180

ttagatatcg cggtgcgaaa tgccaatgat ggcatctcca ttatgcagac tgcggaaggg   240

gcaatgaatg aaaccactaa tattctccaa aggatgcgtg atctttcatt gcaatccgcc   300

aatggttcca atagctatgc tgaaagaata gccttacaag aagaaatgac cgcgttaaat   360
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cgtgcccgtt ctgattggca agtaaaagag ggggcgaatg cgcttagcat gtcattcacg    600

aatcgttttg gtgaaacaga aacgatccaa attaatgcga aagccggcga tgatatcgaa    660

gagcttgcga cctacattaa tggtcagact gacaaagtca cggcatcggt gaatgaagaa    720

ggtcagctac agttgtttat ggccggcgaa gaaacctcag gaacgttatc gttttcagga    780

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gtcgatagtc atcgtgctga gctaggggca tatcaaaacc gcttcagcca tgcgattaat    960

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tatgcgaagg aaaccacgcg catggtcaaa caacagatcc tacagcaagt cagtacttct   1080

attttggcgc aggcgaaaaa agggccgaat ctcgcgttga ccttgctggg ata           1133
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<211>   375
<212>   PRT
<213>   Vibrio vulnificus

<400>   6
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Val Ala Ile Thr Val Asn Thr Asn Val Ala Ala Leu Val Ala Gln Arg
 1               5                  10                  15


His Leu Thr Ser Ala Thr Asp Met Leu Asn Gln Ser Leu Glu Arg Leu
            20                  25                  30


Ser Ser Gly Lys Arg Ile Asn Ser Ala Lys Asp Asp Ala Ala Gly Leu
        35                  40                  45


Gln Ile Ser Asn Arg Leu Gln Ser Gln Met Arg Gly Leu Asp Ile Ala
     50                  55                  60


Val Arg Asn Ala Asn Asp Gly Ile Ser Ile Met Gln Thr Ala Glu Gly
 65                  70                  75                  80


Ala Met Asn Glu Thr Thr Asn Ile Leu Gln Arg Met Arg Asp Leu Ser
                85                  90                  95


Leu Gln Ser Ala Asn Gly Ser Asn Ser Tyr Ala Glu Arg Ile Ala Leu
            100                 105                 110


Gln Glu Glu Met Thr Ala Leu Asn Asp Glu Leu Asn Arg Ile Ala Glu
        115                 120                 125
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Thr Thr Ser Phe Gly Gly Arg Lys Leu Leu Asn Gly Ser Phe Gly Ser
    130   135   140

Ala Ala Phe Gln Ile Gly Ala Ala Ser Gly Glu Ala Val Gln Val Gln
145   150   155   160

Leu Lys Ser Met Arg Ser Asp Gly Ile Asp Met Gly Gly Phe Ser Tyr
                165   170   175

Ile Ala Asn Gly Arg Ala Arg Ser Asp Trp Gln Val Lys Glu Gly Ala
            180   185   190

Asn Ala Leu Ser Met Ser Phe Thr Asn Arg Phe Gly Glu Thr Glu Thr
            195   200   205

Ile Gln Ile Asn Ala Lys Ala Gly Asp Asp Ile Glu Glu Leu Ala Thr
    210   215   220

Tyr Ile Asn Gly Gln Thr Asp Lys Val Thr Ala Ser Val Asn Glu Glu
225   230   235   240

Gly Gln Leu Gln Leu Phe Met Ala Gly Glu Glu Thr Ser Gly Thr Leu
                245   250   255

Ser Phe Ser Gly Asp Leu Ala Ser Glu Leu Gly Leu Gln Leu Lys Gly
            260   265   270

Tyr Asp Ala Val Asp Asn Ile Asp Ile Thr Ser Val Gly Gly Ala Gln
            275   280   285

Gln Ala Val Ala Val Leu Asp Thr Ala Met Lys Tyr Val Asp Ser His
    290   295   300

Arg Ala Glu Leu Gly Ala Tyr Gln Asn Arg Phe Ser His Ala Ile Asn
305   310   315   320

Asn Leu Asp Asn Ile His Glu Asn Leu Ala Thr Ser Asn Ser Arg Ile
                325   330   335

Gln Asp Thr Asp Tyr Ala Lys Glu Thr Thr Arg Met Val Lys Gln Gln
            340   345   350

Ile Leu Gln Gln Val Ser Thr Ser Ile Leu Ala Gln Ala Lys Lys Gly
            355   360   365

Pro Asn Leu Ala Leu Thr Leu
    370   375

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<211>   1158
<212>   DNA
<213>   Vibrio vulnificus

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ctagatgtgg cgatgcgtaa tgccaacgat ggtatctcta tcgctcaaac cgccgaaggg   240

gcgatgaatg aagcgacggc agtcttgcag cgcatgcgtg acttgtcgat tcaatccgcg   300

aacggtacta actcaacgtc tgagcgccaa gcgattcatg aagaagcgag tgctctacaa   360

gacgaaatta accgtattgc tgaaaccaca tcgtttggtg gacgccgtct actgaatggc   420

acctttggtg atgcagcatt ccagattggt tctaactctg gtgaagcgat gattatgggc   480

ttaaccagca tccgtgccga tgatttccgt atgggtggca cgaccttcca gtctgaaaat   540

ggcaaaaaca aagattggga agtgagcgcg ataacgcag agctgaacat cgtattgcca   600

gagatgggtg aagatgaaga tggcaatgtt atcgatttag aaatcaacat catggcgaaa   660

agcggtgatg atattgaaga attggcaacg tacatcaatg gtcaatcgga ctacatcaac   720

gcatcggtaa gtgaagatgg caagctgcaa atctttgttg ctcaaccaaa tgtgaaaggc   780

gatatctcga tttcgggtag ccttgcctct gaactgggtt tgagtgacga accgattgcg   840

acaacagtac aagatttgga tctgcgtacc gtacaaggtt ctcagaacgc aattagcgtt   900

attgacgcgg cattgaagta cgttgattca caacgtgcgg acttaggtgc aaaacagaac   960

cgtttaagcc acagtattaa taacttggcg aacgttcaag aaaacgttga tgcatcgaac  1020

agccgtatta agatactga ttttgcgaag gaaacgacgc aaatgacgaa agcacagatt  1080

ttgcaacagg caggtacttc tattcttgct caagcaaaac aattgccaaa ctctgcaatg  1140

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<212>   PRT
<213>   Vibrio vulnificus

<400>   8
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  1   5   10   15

Tyr Leu Asn Lys Ala Thr Asp Glu Leu Asn Thr Ser Met Glu Arg Leu
             20   25   30

Ser Ser Gly His Lys Ile Asn Ser Ala Lys Asp Asp Ala Ala Gly Leu
         35   40   45

Gln Ile Ser Asn Arg Leu Thr Ala Gln Ser Arg Gly Leu Asp Val Ala
     50   55   60

Met Arg Asn Ala Asn Asp Gly Ile Ser Ile Ala Gln Thr Ala Glu Gly
 65   70   75   80

Ala Met Asn Glu Ala Thr Ala Val Leu Gln Arg Met Arg Asp Leu Ser
                  85   90   95

Ile Gln Ser Ala Asn Gly Thr Asn Ser Thr Ser Glu Arg Gln Ala Ile
                 100   105   110

His Glu Glu Ala Ser Ala Leu Gln Asp Glu Ile Asn Arg Ile Ala Glu
         115   120   125

Thr Thr Ser Phe Gly Gly Arg Arg Leu Leu Asn Gly Thr Phe Gly Asp
     130   135   140

Ala Ala Phe Gln Ile Gly Ser Asn Ser Gly Glu Ala Met Ile Met Gly
145   150   155   160

Leu Thr Ser Ile Arg Ala Asp Asp Phe Arg Met Gly Gly Thr Thr Phe
             165   170   175

Gln Ser Glu Asn Gly Lys Asn Lys Asp Trp Glu Val Ser Ala Asp Asn
             180   185   190

Ala Glu Leu Asn Ile Val Leu Pro Glu Met Gly Glu Asp Glu Asp Gly
         195   200   205

Asn Val Ile Asp Leu Glu Ile Asn Ile Met Ala Lys Ser Gly Asp Asp
     210   215   220

Ile Glu Glu Leu Ala Thr Tyr Ile Asn Gly Gln Ser Asp Tyr Ile Asn
225   230   235   240

Ala Ser Val Ser Glu Asp Gly Lys Leu Gln Ile Phe Val Ala Gln Pro
                 245   250   255

Asn Val Lys Gly Asp Ile Ser Ile Ser Gly Ser Leu Ala Ser Glu Leu
             260   265   270

Gly Leu Ser Asp Glu Pro Ile Ala Thr Thr Val Gln Asp Leu Asp Leu
     275   2